


substrate, using an atmospheric loader comprising:

(1) a single atmospheric transferring device for carrying in and carrying out, one by one, substrates between a cassette which receives plural substrates and two lock chambers;

(2) opening and closing devices, provided at said two lock chambers and being opened and closed every carrying-in said substrate to one of the two lock chambers and every carrying-out said substrate from one of the two lock chambers; and

 (3) a cassette table for mounting said cassette at a position of which an upper region thereof is open to a cassette transferring path,

wherein the method comprises the steps of:

using said single atmospheric transferring device, taking out, one by one, said substrate from said cassette which is mounted on said cassette table, at said position and carrying in, one by one, said substrate to one of said two lock chambers; and

using said single atmospheric transferring device, taking out, one by one, said substrate from one of said two load chambers, and carrying in said substrate to said cassette, wherein said opening and closing devices are opened and closed every carrying-in of said substrate, one by one, to one of the two lock chambers, and every carrying-out of said substrate, one by one, from one of the two lock chambers.

comprising:

an atmospheric loader having (1) a single atmospheric transferring device for carrying in and carrying out, one by one, substrates between (a) a cassette which receives plural substrates and (b) two lock chambers,

(2) opening and closing devices, provided at said two lock chambers and being opened and closed every carrying-in said substrate to one of the two lock chambers and every carrying-out said substrate from one of the two lock chambers; and

(3) a cassette table for mounting said cassette at a position of which an upper region thereof is open to a cassette transferring path,

wherein said single atmospheric transferring device has a mechanism for carrying a substrate, one by one, to and out from said cassette which is mounted on said cassette table, at said position, and a mechanism for carrying a substrate, one by one, to and out from, said two lock chambers, and

wherein said opening and closing devices have structure causing the opening and closing devices to open and close every carrying-in of a substrate, one by one, to one of the two lock chambers, and every carrying-out of a substrate, one by one, from one of the two lock chambers.

17. (Twice Amended) A substrate transferring apparatus comprising:

an atmospheric loader having (1) a single

atmospheric transferring device for carrying in and carrying out, one by one, substrates between (a) a cassette which receives plural substrates and (b) two lock chambers, (2) opening and closing devices, provided respectively at said two lock chambers and being opened and closed every carrying-in said substrate to one of the two lock chambers and every carrying-out said substrate from one of the two lock chambers; and (3) a cassette table for mounting said cassette at a position of which an upper region thereof is open to a cassette transferring path,

wherein said single atmospheric transferring device has a mechanism for carrying in and carrying out, one by one, a substrate between said cassette which is mounted on said cassette table, at said position, and said atmospheric loader, and a mechanism for carrying in and carrying out, one by one, said substrate between said atmospheric loader and said two lock chambers, and

wherein said opening and closing devices have structure causing the opening and closing devices to open and close every carrying-in of a substrate, one by one, to one of the two lock chambers, and every carrying-out of a substrate, one by one, from one of the two lock chambers.

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